

REMARKS

Claims 1-20 are all the claims pending in the application.

I. Objection to the Claims

The Examiner has objected to claims 3-10 and 13-20 for the reasons set forth on page 2 of the Office Action. In particular, the Examiner alleges that claims 3-10 and 13-20 fail to comply with USPTO practice in writing dependent claims as stated in 35 U.S.C. § 112, paragraph five, which indicates that “an element in a claim for a combination may be expressed as a means or step for performing a specified function...”

Initially, Applicants note that it is assumed that the Examiner intended to reference paragraph six of 35 U.S.C. § 112, and not paragraph five as indicated in the Office Action.

Further, Applicants respectfully submit that the Examiner’s basis for the objection to claims 3-10 and 13-20 is improper. In particular, contrary to the Examiner’s comments, Applicants note that 35 U.S.C. § 112, sixth paragraph does not require that functional language in a dependent claim be written in means plus function format, but instead, explicitly states that “an element in a claim for a combination may be expressed as a means or step for performing a specified function...” (emphasis added).

Thus, while 35 U.S.C. § 112, sixth paragraph permits functional limitations to be expressed in a means plus function format, there is no requirement that functional limitations must be expressed in means plus function format. The Examiner is attempting to impose a requirement on the language recited in claims 3-10 and 13-20 that is not consistent with U.S. practice.

Furthermore, as stated in MPEP §608.01(n)(III), the test as to whether a claim is a proper dependent claim is that it must include every limitation of the claim from which it depends, or in other words, that it shall not conceivably be infringed by anything which would not also infringe the base claim. Accordingly, because claims 3-10 and 13-20 cannot be infringed without also infringing their respective base claims, Applicants submit that claims 3-10 and 13-20 are proper dependent claims.

In view of the foregoing, Applicants kindly request the Examiner to reconsider and withdraw the objection. If the Examiner maintains this objection, Applicants request that the Examiner provide Applicants with explicit citations to sections of the MPEP which indicate that a dependent claim which recites functional language must be expressed in means plus function format.

Further, Applicants note that the Examiner has indicated that should claims 3-10 be found allowable, then claims 13-20 will be objected to under 37 C.F.R. § 1.75 as being substantial duplicates thereof. Applicants respectfully disagree and submit that claims 13-20 are not substantial duplicates of claims 3-10.

Initially, Applicants note that claims 3, 5, 7 and 9 depend from independent claim 1, that claims 4, 6, 8 and 10 depend from independent claim 2, that claims 13, 15, 17 and 19 depend from independent claim 11, and that claims 14, 16, 18 and 20 depend from independent claim 12. Moreover, Applicants note that independent claims 1 and 2 include, for example, the feature of “an information read-out means for reading information signals from a disklike information recording medium”, and that independent claims 11 and 12 include the feature of “an optical

pickup operable to read information signals from a disklike information recording medium”
(emphasis added).

Thus, as claims 1 and 2 recite the feature of “an information read-out means”, and claims 11 and 12 recite the feature of “an optical pickup”, it is clear that claims 1 and 2 contain an element written in means plus function format, whereas claims 11 and 12 do not include such a feature. As expressed in 35 U.S.C. § 112, sixth paragraph, an element that is written in means plus function format “shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.”

Accordingly, as the feature of “an information read-out means”, as recited in claims 1 and 2, corresponds to structure described in the specification and equivalents thereof, Applicants respectfully submit that such a feature has a different scope than the feature of “an optical pickup”, as recited in claims 11 and 12. That is, as the feature of “an optical pickup” in claims 11 and 12 is not written in means plus function format, such a feature is not construed to cover the “corresponding structure, material, or acts described in the specification and equivalents thereof”.

In view of the foregoing, Applicants respectfully submit that independent claims 1 and 2 are of a different scope than independent claims 11 and 12. Accordingly, as the claims from which claims 3-10 depend (i.e., claims 1 and 2) have a different scope than the claims from which claims 13-20 depend (i.e., claims 11 and 12), Applicants respectfully submit that claims 3-10 are not substantial duplicates of claims 13-20 due to the dependency of the respective claims.

Based on the foregoing comments, Applicants kindly request that the Examiner reconsider and withdraw the objections to claims 3-10 and 13-20.

II. Claim Rejections under 35 U.S.C. § 103(a)

A. The Examiner has rejected claims 1 and 11 under 35 U.S.C. § 103(a) as being unpatentable over Katoh (U.S. 6,088,311) in view of Leonowich (U.S. 5,315,270) and Ishibashi et al. (U.S. 6,134,197).

Claims 1 and 11 recite the feature of a gain command unit which issues a gain command such that the loop gain of the clock extracting circuit secures a desired operating point in accordance with a read rate of the information signals.

The Examiner recognizes that neither Katoh nor Ishibashi teaches or suggests such a feature. The Examiner, however, has applied Leonowich and alleges that Leonowich teaches the above-noted feature. In particular, the Examiner has taken the position that element 22.2 of Leonowich corresponds to the gain command unit as claimed (see Office Action at pages 3-4). Applicants respectfully disagree.

Regarding Leonowich, Applicants note that this reference discloses a system which maintains a loop gain constant with changes of the transition density of an input signal. For example, Leonowich sets forth at col. 3, lines 54-60 that:

Since the transition density changes as a function of time, the PLL dynamically adjusts the current pulse amplitudes so that the phase detector gain, and hence the loop gain, compensates for variations in density. Effectively, therefore, the gain and hence the loop dynamics are maintained essentially constant over a relatively wide range of data transition densities.

Thus, as is evident from the above disclosure, and which is further apparent from the description at col. 3, lines 5-9 of Leonowich which sets forth that “the invention makes the loop gain essentially constant even though the transition density may vary”, it is clear that the loop

gain in Leonowich is maintained constant with varying data transition densities (also see col. 6, lines 17-19).

Accordingly, while Leonowich discloses the ability to maintain a loop gain constant with changes in transition density, Applicants respectfully submit that Leonowich does not disclose or suggest that a loop gain of a clock extracting circuit secures a desired operating point in accordance with a read rate of information signals, as recited in claims 1 and 11.

In view of the foregoing, Applicants respectfully submit that the cited prior art fails to disclose, suggest or otherwise render obvious all of the features recited in claims 1 and 11. Accordingly, Applicants submit that claims 1 and 11 are patentable over the cited prior art, an indication of which is kindly requested.

B. The Examiner has rejected claims 2 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Katoh in view of Leonowich and Ishibashi and further in view of Okada et al. (U.S. 6,175,542).

Applicants note that claims 2 and 12 recite the same feature as discussed above with respect to claims 1 and 11. In particular, claims 2 and 12 each recite the feature of a gain command unit which issues a gain command such that the loop gain of the clock extracting circuit secures a desired operating point in accordance with a read rate of the information signals.

The Examiner recognizes that neither Katoh nor Ishibashi nor Okada teaches or suggests such a feature. The Examiner, however, has applied Leonowich and alleges that Leonowich teaches the above-noted feature. In particular, as indicated above with respect to claims 1 and

11, the Examiner has taken the position that element 22.2 of Leonowich corresponds to the gain command unit as claimed. Applicants respectfully disagree.

In particular, as discussed above, Leonowich discloses a system which maintains a loop gain constant with changes of the transition density of an input signal. For example, Leonowich sets forth at col. 3, lines 54-60 that:

Since the transition density changes as a function of time, the PLL dynamically adjusts the current pulse amplitudes so that the phase detector gain, and hence the loop gain, compensates for variations in density. Effectively, therefore, the gain and hence the loop dynamics are maintained essentially constant over a relatively wide range of data transition densities.

Thus, as is evident from the above disclosure, and which is further apparent from the description at col. 3, lines 5-9 of Leonowich which sets forth that “the invention makes the loop gain essentially constant even though the transition density may vary”, it is clear that the loop gain in Leonowich is maintained constant with varying data transition densities (also see col. 6, lines 17-19).

Accordingly, while Leonowich discloses the ability to maintain a loop gain constant with changes in transition density, Applicants respectfully submit that Leonowich does not disclose that a loop gain of a clock extracting circuit secures a desired operating point in accordance with a read rate of information signals, as recited in claims 2 and 12.

In view of the foregoing, Applicants respectfully submit that the cited prior art fails to disclose, suggest or otherwise render obvious all of the features recited in claims 2 and 12. Accordingly, Applicants submit that claims 2 and 12 are patentable over the cited prior art, an indication of which is kindly requested.

III. Allowable Subject Matter

Applicants thank the Examiner for indicating that claims 3-10 and 13-20 are objected to as being dependent upon a rejected base claim, but would be allowable if the objections to these claims were overcome, and the claims were rewritten in independent form including all the limitations of the base claim and any intervening claims. As noted above, Applicants respectfully submit that the objections to claims 3-10 and 13-20 should be withdrawn.

IV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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